

Subpart A—Citrus Juices and Certain Citrus Products

§ 93.1 General.

Domestic and imported citrus products are tested to determine whether quality and grade standards are satisfied as set forth in the Florida Citrus Code.

§ 93.2 Definitions.

Words used in the regulations in this subpart in the singular form will import the plural, and vice versa, as the case may demand. As used throughout the regulations in this subpart, unless the context requires otherwise, the following terms will be construed to mean:

Acid. The grams of total acidity, calculated as anhydrous citric acid, per 100 grams of juice or citrus product. Total acidity is determined by titration with standard sodium hydroxide solution, using phenolphthalein as indicator.

Brix or degrees Brix. The percent by weight total soluble solids of the juice or citrus product when tested with a Brix hydrometer calibrated at 20° C (68° F) and to which any applicable temperature correction has been made. The Brix or degrees Brix may be determined by any other method which gives equivalent results.

Brix value. The refractometric sucrose value of the juice or citrus product determined in accordance with the "International Scale of Refractive Indices of Sucrose Solutions" and to which the applicable correction for acid is added. The Brix value is determined in accordance with the refractometric method outlined in the Official Methods of Analysis of AOAC INTERNATIONAL, Suite 500, 481 North Frederick Avenue, Gaithersburg, MD 20877-2417.

Brix value/acid ratio. The ratio of the Brix value of the juice or citrus product, in degrees Brix, to the grams of anhydrous citric acid per 100 grams of juice or citrus product.

Brix/acid ratio. The ratio of the degrees Brix of the juice to the grams of anhydrous citric acid per 100 grams of the juice.

Citrus. All plants, edible parts and commodity products thereof, including

pulp and juice of any orange, lemon, lime, grapefruit, mandarin, tangerine, kumquat or other tree or shrub in the genera *Citrus*, *Fortunella*, or *Poncirus* of the plant family Rutaceae.

Recoverable oil. The percent of oil by volume, determined by the Bromate titration method as described in the current edition of the AOAC INTERNATIONAL.

§ 93.3 Analyses available and location of laboratory.

(a) Laboratory analyses of citrus juice and other citrus products are being performed at the following Science and Technology Division location: Science and Technology Division Citrus Laboratory, 98 Third Street, SW, Winter Haven, FL 33880.

(b) Laboratory analyses of citrus fruit and products in Florida are available in order to determine if such commodities satisfy the quality and grade standards set forth in the Florida Citrus Code (Florida Statutes Pursuant to Chapter 601). Such analyses include tests for acid as anhydrous citric acid, Brix, Brix-acid ratio, recoverable oil, and artificial coloring matter additive, as turmeric. The Florida Division of Fruit and Vegetable Inspection may also request analyses for arsenic metal, pulp wash (ultraviolet and fluorescence), standard plate count, yeast with mold count, and nutritive sweetening ingredients as sugars.

(c) Additional laboratory tests are available upon request at the Science and Technology Division Citrus Laboratory at Winter Haven, Florida. Such analyses include tests for vitamins, naringin, sodium benzoate, *Salmonella*, protein, salt, pesticide residues, sodium metal, ash, potassium metal, and coliforms for citrus products.

§ 93.4 Analytical methods.

(a) The majority of analytical methods for citrus products are found in the Official Methods of Analysis of AOAC INTERNATIONAL.

(b) Other analytical methods for citrus products may be used as approved by the Director, Science and Technology Division.